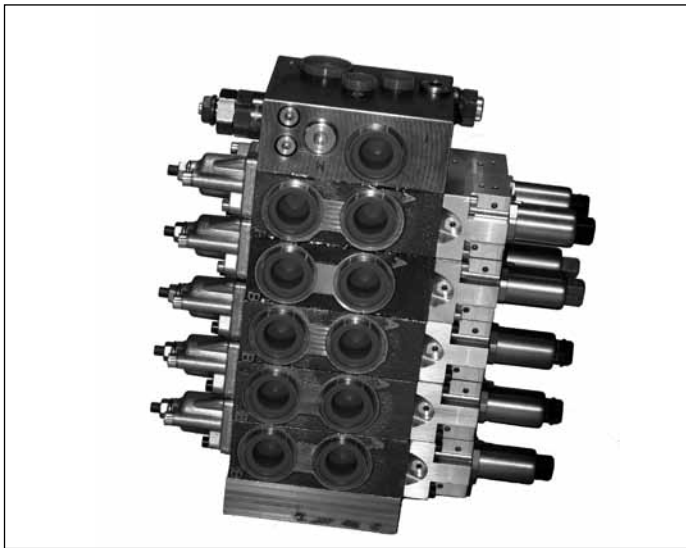


M4-12 Series Hydraulic Valves

03.2012



► Sectional M4-12 valve with side-ported inlet and electrohydraulic valve actuation

Features

System

- Load pressure-independent flow control
- Open center for fixed displacement pump
- Closed center for variable displacement pump

Design

- Sandwich plate design
- Inlet element
- Up to 10 directional valve elements with front inlet
- Up to 16 directional valve elements with mid inlet
- End element
- Can mix and match elements in one assembly

Types of Actuation

- Mechanical (moving hand lever or cable)
- Air operated
- Electrohydraulic (On/Off, Proportional)

Flow

- Load pressure-compensated
- High repeatability
- Low hysteresis
- Adjustable via stroke limiter

Technical Data			
Design		Stackable Sandwich Plate Design	
System		Load Sensing (LS)	
Type of Connection		SAE Threading Ports	
Weight	Inlet Element	Open Center	6.0 kg or 13 lbs
		Closed Center	4.3 kg or 9.5 lbs
	Directional Valve Element	Mechanical	4.9 kg or 11lbs
		Hydraulic	4.2 kg or 9 lbs
		Electrohydraulic	4.5 kg or 10 lbs
	End Element	2.6 kg or 6 lbs	
Hydraulic Fluid and Ambient Temperature Range		-20 to +80 °C or -4 to +176 F	
Hydraulic			
Flow	Port P	150 l/min or 40 gpm	
	Port A & B	130 l/min or 34 gpm with pressure compensator	
Nominal Pressure		5000 psi or 350 bar	
Operating Pressure, max	P/LS	5000 psi or 350 bar	
	A/B	6000 psi or 420 bar	
	T	435 psi or 30 bar	
Pilot Pressure, max	X	5000 psi or 35 bar	
Pilot Pressure, range	Hydraulic	125 to 325 psi or 8.5 to 22.5 bar	
	Electrohydraulic	100 to 250 psi or 6.5 to 17.2 bar	
LS Pressure Relief Function (adjustment ranges)		725 to 2150 psi or 50 to 149 bar 2175 to 5000 psi or 150 to 350 bar	
Hydraulic Fluid		Mineral oil (HL, HLP) to DIN 51 524 Other fluids on enquiry, eg. HEES (synthetic esters) to VDMA, or hydraulic fluids as specified in RE 90221	
Viscosity Range		10 to 380 mm ² /s	
Degree of Contamination, max		ISO 4406 © class 20/18/15	
Electrical			
Electrical Pilot Control Valves		On / Off type FTWE	Proportional type FTDRE
	Voltage	12 vdc	12 vdc
	Power consumption at 20°C	14.4 Watts	14.4 Watts
	Coil resistance (R20)	40 ohms / 10 ohms	12 ohms / 2.4 ohms
	Duty cycle	100%	100%
	Type of protection	DIN 40 050 : IP65	DIN 40 050 : IP65
	Connector	Amp - Jr Timer	Amp - Jr Timer

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